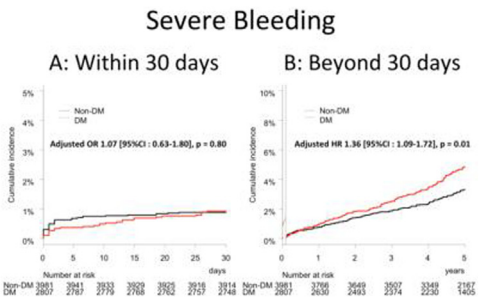
POSTERS

Methods: We assessed the influence of diabetes on both short-term (within 30 days) and long-term (beyond 30 days) bleeding risk after coronary DES implantation. Accounting for the differences in duration of dual antiplatelet therapy (DAPT) between diabetic and non-diabetic patients, the Cox proportional hazard model was used to evaluate long-term bleeding risk treating DAPT as a time-dependent covariate.
Results: Among consecutive 15939 patients undergoing first coronary revascularization from 2005 to 2007 in the CREDO-Kyoto PCI/CABG registry cohort-2 enrolling patients, we identified 2807 diabetic patients and 3981 non-diabetic patients who received at least one drug-eluting stent (DES) implantation. 5-year incidence of severe bleeding was 5.7% in diabetic patients and 4.1% in non-diabetic patients. No differences in the rate of bleeding were observed within 30 days (1.0% in diabetic patients and 1.0% in non-diabetic patients, p=0.80) (Figure A). Beyond 30 days, the significantly higher cumulative incidence of bleeding among diabetic patients as compared to non-diabetic patients was observed (Figure B). At multivariate analysis, adjusted hazard ratio of diabetic patients for long-term severe bleeding was 1.36 (95% CI: 1.09-1.72, p=0.01).



Conclusions: In comparison with non-diabetic patients, there was a significant excess risk in long-term, but not in short-term, severe bleeding with diabetic patients.

TCT-289

Allen Test: Is It Really Necessary Before Transradial Catheterization?

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Background: The Allen test (AT) was described in 1929, by Doctor Edgar V. Allen, as a method of diagnosing thromboangiitis obliterans. With the advent of radial artery grafting, surgeons started using this method to assess for adequate hand perfusion, before harvesting the radial artery. The use of AT for transradial catheterization (TRC) was recommended as a way to identify those patients that are at risk for the extremely rare complication of hand ischemia. Currently, there are poor evidence to support routine use of AT for all patients undergoing TRC . Our aim , is to examine if TRC can be safely performed without this test.
Methods: We performed a total of 3006 transradial catheterizations between January 1st, 2006 and December 31st, 2009. Baseline characteristics of our patients and all procedural information were collected through a computerized database and close follow up of the current study population was performed until June 2013 . We evaluated the incidence of asymptomatic radial artery occlusion in patients undergoing TRC for the first time (Group I) and in patients undergoing repeated TRC (Group II). In both groups we also examined the incidence of symptomatic hand ischemia.
Results: In total, 2.817 patients (96.9%) underwent a single TRC (Group I) and 91 patients (3.1%) underwent two or more TRC (Group II). While the incidence of asymptomatic radial artery occlusion raised from 0.1% in Group I to 3.3% in Group II, there were no cases of symptomatic hand ischemia either on periprocedural or long term follow up.
Conclusions: More than 3000 catheterizations were performed safely in our center without the Allen test and that included 91 patients that underwent repeated catheterizations from the same artery without having any signs of hand ischemia. The incidence of hand ischemia is very rare. Even in the case where radial artery occlusion occurs, this is mostly asymptomatic due to collateral circulation. Based on our experience, we conclude that initial or repeated radial artery catheterization can be safely performed without the Allen test.

TCT-290

Trans-radial approach for coronary intervention in female patients with Acute Coronary Syndrome

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Background: It is shown that women have less favourable outcomes than men after percutaneous coronary interventions (PCI) for acute coronary syndrome (ACS). Difference might be partly attributed to access site and bleeding complications. Latest scientific literature report that compared to trans-femoral PCI, showed trans-radial PCI is associated with lower risk of bleeding and improved clinical outcomes. We sought to assess potential benefits of trans-radial PCI in female patients with ACS treated with the Nobori abluminally coated DES with biodegradable polymer.
Methods: A total of 1426 female patients admitted with ACS have been enrolled in two large Nobori registries, of which 739 were treated using radial approach (RAD) and 702 using femoral approach (FEM). The primary endpoint of the study is Target Lesion Failure (TLF) at 1 year.
Results: The average age (67 years), as well as other baseline characteristics were similar in both groups. However, patients in RAD group were less likely to have diabetes (36.6% vs. 42.0%), hypertension (71.6% vs 76.2%) or a previous MI (17.2% vs 26.8%). Lesion complexity was similar (57.8% vs 63.6% of B2/C type) in RAD and FEM groups respectively. Procedural success rate was high in both groups (99.3% RAD vs 98.9% FEM) without significant difference. Cross-over from radial to femoral occurred in 2.1% of the procedures. Major bleeding complications up to 12 months were numerically lower in RAD patients 0.9% vs 2.4% in FEM patients (p=0.06). The patients in the RAD group also showed a clear trend towards a lower number of adverse events at one year: death RAD 2.0% vs 2.4% in FEM (p=NS); MI 1.8% vs 2.7% (p=NS); TVR 2.2% vs 5.0% (p=0.03), stent thrombosis 0.4% vs 1.4% (p=0.04). Cumulative frequency of TLF and MACE was 3.6% and 4.3% in RAD and 3.8% and 5.8% in FEM, respectively.
Conclusions: Favourable clinical outcomes, high procedural success and a low rate of bleeding complications reported in this study provide additional evidence to support the use of a radial approach in female patients with ACS whenever such procedures are technically feasible.

TCT-291

Randomized Comparison of Low (2500 IU) versus Standard (5000 IU) Heparin Dose for Prevention of Forearm Artery Occlusion after Coronary Angiography

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Background: Radial artery occlusion (RAO) remains the "Achilles heel" of transradial coronary procedures. Higher over lower levels of systemic anticoagulation are believed to reduce RAO rates but this is ill-supported by scientific evidence.
Methods: This was a prospective, randomized, single-center study of parallel design. Patients were enrolled if they were older than 18 years old, were scheduled for diagnostic coronary angiography and the interventional cardiologist was willing to proceed with either radial or ulnar access. Patients were randomized before diagnostic catheterization in a 1:1 ratio to receive either 2500 IU or 5000 IU of unfractionated heparin. Patients were excluded after randomization when crossover to another arterial access site had been required, a different than 5F sheath size had been inserted or ad hoc PCI had been performed. Study's primary endpoint was arterial access site occlusion rate, as confirmed by absence of antegrade flow by Doppler examination, within 60 days after coronary angiography.
Results: Between June 2010 and January 2013 1167 patients were randomized to receive either 2500 or 5000 IU of heparin. In total 654 patients were excluded after randomization, leaving 603 patients (2500 IU N=302 και 5000 IU N=301) to test study's hypothesis. Patients' baseline and angiographic characteristics (74.5% men, 31.3% diabetics, 38.3% with acute coronary syndrome) were well balanced between groups. At a median follow-up of 8 (1-60) days (Doppler available in 97.7% of patients), we observed 60 arterial occlusions among the 589 analyzed patients (10.2%). However, the occlusion frequency did not differ between the 2500 and 5000 IU Heparin arm (12.0% vs. 8.4%, p=0.2).
Conclusions: Standard dose of heparin was not found superior to low dose, in reducing forearm artery occlusion rate after coronary angiography.